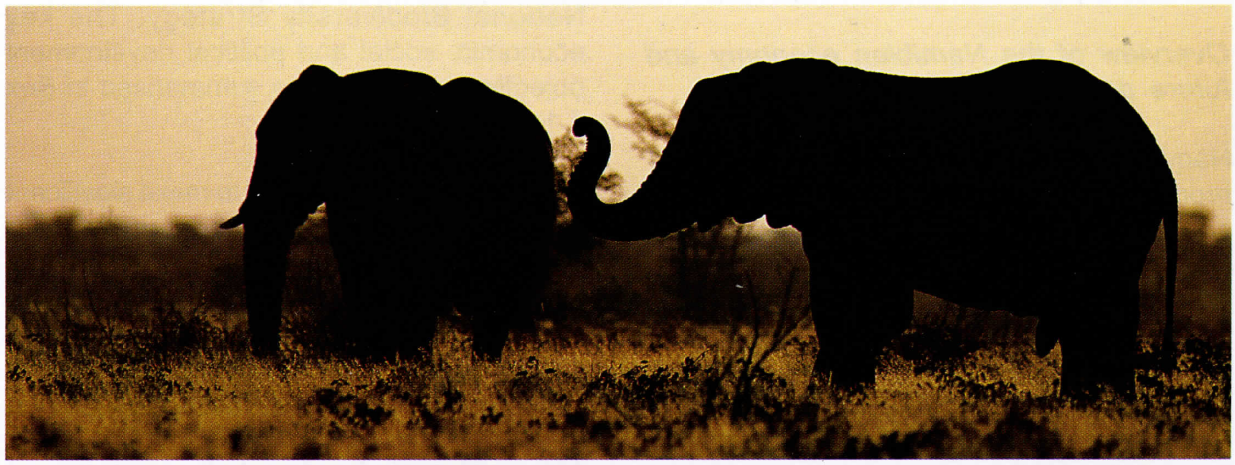
Economics of biodiversity conservation in Namibia 4

Julie Richardson



Courtesy R Simmons

4.1 Overview

What does economics have to offer biodiversity conservation? Even as international funding for conservation increases, difficult decisions still need to be made about which species, genetic resources and ecological zones must first be conserved, and how best to conserve them. How can environmental economics help in making such decisions in Namibia?

This chapter is a first step in showing how economic principles and tools (*e.g.* environmental valuation, cost benefit analysis, and policy analysis) are used to illustrate the economic values of biotic resources and biodiversity conservation, and how these values can be used to influence economic decision making. It is organised into five sections:

Introduction: This section gives a broad overview of the links between economics and biodiversity. It outlines Namibia's *economic development priorities* according to the First National Development Plan and summarises the implications of structural and economic diversification for natural resource related sectors. This section outlines the economic development context within which the National Biological Diversity Strategy must be set.

The section also introduces important economic concepts relating to biological diversity conservation. It provides a general discussion of *the economic causes of biodiversity loss* in terms of overexploitation and habitat conversion, and introduces issues relating to the *economic valuation of biodiversity* (linking ecological and economic values, environmental valuation methods, and problems in the valuation of biodiversity).

The economic benefits of biodiversity conservation in Namibia: This section develops a framework for estimating economic values of biological resources and biodiversity in Namibia. Secondary data sources are used to illustrate *economic values of genetic and species diversity* with examples from agriculture, livestock, tourism, forestry and wild plants, and *habitat and ecosystem diversity* with examples from dryland and wetland ecosystems.

The costs of biodiversity conservation in Namibia: A distinction is made between different types of costs relevant to biodiversity conservation: *direct costs, external costs, and opportunity costs.* Case studies from Namibia are used to illustrate these different types of costs in the context of biological resources and biodiversity. The section concludes with an outline of the use of *cost benefit analysis* in biodiversity conservation, with examples from Namibia and other African nations.

Economic policy analysis: This section provides a general discussion of the economic roots of biodiversity loss. Examples from Namibia are used to show how market and policy failures may be at least partially responsible for the degradation of natural resources and biodiversity erosion.

Conclusions and recommendations: This section draws together numerous threads to point the way for future policy and economic analysis.